ABSTRACT OF THE DISCLOSURE

Various methods and apparatuses for measuring a state parameter of an individual using signals based on one or more sensors are disclosed. In one embodiment, a first set of signals is used in a first function to determine how a second set of signals is used in one or more second functions to predict the state parameter. In another embodiment, first and second functions are used where the state parameter or an indicator of the state parameter may be obtained from a relationship between the first function and the second function. The state parameter may, for example, include calories consumed or calories burned by the individual. Various methods for making such apparatuses are also disclosed.